

PROBLEMS IN DEVELOPING SEMINAR COURSE FOR BIOLOGY EDUCATION STUDENTS

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Abstract

Biology Education students should be prepared to write their ideas and present their ideas in a seminar. Two cycles of Classroom Action Research (CAR) was Done in developing Seminar Course for Biology Education Students in the second semesters of 2012/2013 and 2013/2014. For the first cycle of CAR the writer who was new in this course had a partner in conducting the course for two classes. At that time the seminar paper was targeted to prepare a research proposal. As a partner of an experienced lecturer, the writer did not face much problem because the writer just follow the partner. The writer also used to teach educational research course. At the beginning of the new year of 2013/2014 the writer present the syllabus content and the purposes of seminar course to be discussed in the Biology Department. The result of the lecturers' discussion was that the seminar can be used to train the students to present ideas in (Biology) Education, it can be a research proposal or any ideas in Biology Education. For the second cycle the writer had one seminar class of 20 students and didn't have partner in conducting the seminar course. The problems faced by the writer was in guiding students in finding the title of the seminar paper, in finding how to guide the students in using literature sources and in writing the seminar paper. The writer tried to answer the problem by conducting CAR with the action to give the students tasks to present the problems that were interested for the students, to do critical analysis of at least ten articles, to present the results of critical analysis of articles related to the background of the problem in front of the class and show the highlighted part of the articles that will be cited in the background of the problem, and to present the draft of the seminar paper. The results showed that students had tried their best in preparing the tasks but that the writer still had to give examples on how to give inputs to the presenter on how to improve the ideas and the presentation.

Keywords: Biology Education Students, developing Seminar Course, problems

1. INTRODUCTION

One of the 21st Century skills that should be learnt by Biology Education students at the Mathematics and Science Faculty, State University of Malang, is communication skills. According to [1] communication requires a multitude of 21st century skills: analysis, evaluation, problem solving, metacognition, collaboration, and technology. This skills are developed through a course called Seminar Course. The students should be prepared to write their ideas and present their ideas in a seminar.

The writer was assigned to teach 2 classes of seminar course in the second semester of 2012/2013. As a new lecturer in the course, the writer was given a partner who had conducted the course for a longer time. At that time the seminar paper was targeted to prepare a research proposal. As a partner of an experienced lecturer, the writer did not face much problem because the writer just follow the partner. The writer also used to teach educational research course.

At the beginning of the new year of 2013/2014 the writer present the syllabus content and the purposes of seminar course to be discussed in the Biology Department. The result of the lecturers' discussion was that the seminar can be used to train the students to present their ideas in Biology or (Biology) Education, it can be a research proposal or any ideas in Biology or Biology Education.

In the second semester of 2013/2014 the writer was assigned to teach one seminar class of 20 students and didn't have partner in conducting the seminar course. The problems faced by the writer was in developing a good seminar course for the biology education students which was in the following writing, speaking and listening skills [1]: a) write informative text to examine and convey complex ideas and information under a title of his or her interest (or guiding students in finding what to write, or the title of the seminar paper); b) produce a clear and coherent writings in which the development, organization, and style are appropriate to the task, purpose, and audience (or guiding the students in using literature sources and in writing the seminar paper); and c) present information and findings in an organized manner and appropriate style, such that the listeners can follow, and adapt speech to the context of a seminar (or guiding the students in presenting their seminar paper; and d) evaluate information presented by their peer (or guiding the students in assessing their friend's presentation).

2. METHODS

Two cycles of Classroom Action Research (CAR) was done in developing Seminar Course for Biology Education Students in the second semesters of 2012/2013 and 2013/2014. The writer will present how the writer conducted the seminar course in the first cycle of CAR when the writer who was new in this course had a partner in conducting the course for two classes and in the second cycle when the writer had no partner in conducting the course.

3. RESULTS

3.1 The First Cycle

The number of students who took seminar course in the second semester of 2012 and 2013 was 35, consisted of two classes of students (17 in Class BB and 18 students in Class B). The result of this first cycle of CAR would be based on what was done in only one of those two classes (Class B).

In the first day of meeting the writer just follow the partner who presented the syllabus for the seminar course, and explained what should be done in the 16 meetings of the course. Students were expected to choose one topic of research that would be developed as their "skripsi" (end of program paper that is written after conducting one kind of research under the supervision of two lecturers). At first, each of the students was expected to have 3 problems and discussed their problem in a group of three and then chose one of the problem to be developed further. By the third meeting students should determined what topic they choose to become their seminar topic. The students had to present their topic twice, once to get inputs from other students and the lecturers (Meeting 3-11), and the second time to present their final proposal. The topics chosen by the students for the First Cycle are presented in Table 1.

Table 1: Topics Chosen by the Students for the First Cycle (2012/2013)

No.	Name of Presenter	Topics	Type of Research
1.	Aliyatus Sa'diyah	Problem Based Learning and Think Pair Share to increase motivation and Biology learning in Class X	Classroom action research (CAR)
2.	Cinthia Mariana	The use of Environment as learning media to increase biological concept attainment in Class X	CAR
3.	Lutfi Rizkita	The use of Lesson study in Biology with sosio-scientific issues based instruction for character building	CAR
4.	Herwim	The Implementation of 4E Learning Cycle and TPS to Improve Class X Students' Critical Thinking and Biology Learning	CAR
5.	Irma Dwi Jayanti	The use of Contextual Teaching and Learning with Picture and Picture to improve the Class X Students Motivation	CAR
6.	Dwida Magfiroh	Guided Inquiry Learning	Experiment
7.	Andika	The use of Picture to Improve Class X students in Learning Biology	CAR
8.	Dianing	The Use of Active Learning Approach through Predict, Observe, Explain (POE) Model and Crossword Puzzle Media to Improve Class X Students Participation in Science Learning	CAR

9.	Iffah	The Implementation of Cooperative Learning NHT (Numbered Heads Together) to Improve Class X Students' Learning Aktiviti and Performance.	CAR
10.	Asti	The Implementation of Inquiry Method, mind map and a flow chart for Class VII Students	CAR
11.	Henny Indriana	The Effectiveness of Two Stay Two Stray compared to Jigsaw.Method	Experiment
12.	Anisa Meida Silvia	The use of mind map for Junior High School Students	CAR
13.	Intan Rezki	The Analysis of the Correlation of Environmental Knowledge and Attitude in Preserving the Environment for Class X Students	Correlational*
14.	Devi	The Implementation of PBL through Cooperative Learning Type Group Investigation to Improve Senior High School Students' Performance in Biology Learning	CAR
15.	Ety	The Effect of Giving End of Class Task on Class X Students' Biology Learning	Experiment
16.	Efi Kurniasari	The Implementation of Cooperative NHT on Class XI Students Performance in Biology Learning	Experiment
17.	Fatatus	The Implementation of CTL based Inquiry to Improve Class XI Students' Activities and Biology Learning	CAR
18.	Karina	The Effect of Laboratory Work on Biology Learning of Class XI Students.	Experiment

For each of the presenter there were one moderator, one notulist, and three students who are assigned to give comments on the presentation. Other students may also give comments after the three students give their comments, then the lecturers give comments.

*The writer give comments to Intan Rezki proposal to ask after she has got the result of the research "so what"? and asked her to try to find other topic. The final proposal title was The Effect of PBL based CTL on Class XI Students' Performance and Critical Thinking.

The assessment of the course was based on the scores of students' final papers, and their contribution in the seminar when their friends presented their paper.

As a new seminar lecturer, the writer only gave one contribution to improve the quality of the seminar course at the first cycle, which was: to give students the task to write learning journal for each meeting. But at that time the writer did not grade the journal. It only became one of the means to improve the students' competence in writing their ideas.

Based on the results of the first cycle, the writer tried to improve the quality of the Seminar Course by improving the quality of the tasks given to the students. The tasks that should be improved from the First Cycle to the Second Cycle are: in the topics (not only ideas for the "skripsi" proposal, but can be any topic in Biology or Biology Education, the number of references cited for developing their seminar paper, the quality of power point for students' presentation, and the assessment instrument for assessing the presentation of the seminar paper.

3.2 The Second Cycle

The writer chose the action to give the students tasks to present the problems that were interested for the students, to do critical analysis of at least ten articles, to present the results of critical analysis of articles related to the background of the problem in front of the class and show the highlighted part of the articles that will be cited in the background of the problem, and to present the draft of the seminar paper.

In the first day of meeting the writer presented the syllabus for the seminar course, and explained what should be done in the 16 meetings of the course. Students were expected to choose one topic of interest to be a "seminar thesis" to be presented in front of certain audience (the students can choose the audience). At first, each of the students was expected to have 3 topics of interest and discussed their topics in a group of three and then chose one of the topics to be developed further. By the third meeting students should determined what topic they choose to become their seminar topic. The students had to present three times, once to get inputs from other students and the lecturers (Meeting 2-6), the second time to present their results of critical analysis of two or more articles that would become their references out of the ten required

references (meeting 7-11), and finally the final seminar paper (meeting 12-16). The topics chosen by the students for the Second Cycle are presented in Table 2.

Table 2: Topics Chosen by the Students for the Second Cycle (2013/2014)

No.	Name of Presenter	Seminar Paper Title	Type of Topics
1.	Bayu Putra Suhartono	Acceleration Program as a support for Students Social Skills	Acceleration Program
2.	Dewi Novrina Utami	The Change of Curriculum does not Guarantee the Improvement of Education Quality	New Curriculum
3.	Elsy Dian Saputri	Alternative Education (Homeschooling): Home is my Class, the World is My School	Homeschooling
4.	Erita Nur Rohma	The National Examination as an Ineffective Educational Evaluation System in Indonesia	National Examination
5.	Fadhillah Rahayu	Hypnoteaching: Teaching Revolution to Revive the Class	Hypnoteaching
6.	Happy Kamala Rizqi	Indonesian Remote Places Thirst for Education	Remote Area of Indonesia
7.	Hosnul Khotimah	Mind Mapping Facilitate Brains Work and Joyful Learning	Mind Mapping
8.	Indri Listi Kusuma	Neuroscience: Gold Capital in Education	Neuroscience
9.	Isma Nisaatul Uswah	AEC: Choke Indonesian Students	
10.	Linda Sulistian	Professional Teacher is Not Smart Teacher	Professional Teacher
11.	Mita Listiani	Integration of 21 st Century Skills in New Paradigm of Education	21 st Century Skills
12.	Muhammad Saefi	It is a choice: New Curriculum or New Teacher	New Curriculum
13.	Nadidah Safitri	Is Curriculum 2013 an advanced one?	New Curriculum
14.	Ninda Cynthia Pradani	Educational Games to Create Smart Students	Educational Games
15.	Prayoga Rendra V	Senior High School National Examination for University Entrance Selection: Its Problem and Solution	National Examination
16.	Rahayu Setyaningsih	Journal based Learning Resource can train the students to Think Critically	Journal as Learning Media
17.	Rinda Annisaa	Using the Stage of Children Development to Improve: Diligent Strategy to Teach Sholat	Sholat
18.	Rizky Pradita Y.	Educational Defense Concept: The Suggested Investation for the Development of Nation through Education of the Intelligent Generation	Educational Defense Concept
19.	Tantyo Linarti	The Analysis of the Validity of Determining the Minimal Passing Level for Student Learning	Minimum Passing Level (KKM)
20.	Tri Riskawati	The Evaluation of Lesson Study for Improving Teachers' Performance	Lesson Study
21.	Ulil Husna	The Importance of Developing Science Curriculum based on Endogenous Intelligence	Endogenous Intelligence

Based on the actions that the writer have done at the Second Cycle, the writer will discuss four aspects of developing the seminar course for the Biology Students: 1) the topic chosen by the students; 2) the organization of the lectures; 3) The references for Writing the seminar paper; and 4) The Assessment of the seminar paper and presentation.

The Topic: The results showed that none of the students chose a research proposal for their seminar title. Also none of the students wrote in Biology Education (although some wrote regarding Science Education). There are evidences that at the beginning some students tried to write a kind of educational background for developing some modules, but then they changed the topic to become what are listed in Table 2.

The organization of the Seminar Course: The writer made mistakes in not assigning the students to write a learning journal from the beginning of the semester. The students started to write their journal for the fifth meeting. The advantage of writing learning journal for students are [2] a) they can think about their emerging knowledge and skills, b) they can write about what they know and want to know, c) they can appreciate how they think, and d) they can consider how they can monitor and manage their thought and action. The advantage of students writing the learning journal for the writer are a) the writer can keep track on what happen in class in terms of what materials are discussed and how it was discussed in the eyes of the students; b) who presented what materials and who did give response to the presenter and in what aspects.

The students had tried their best in preparing the tasks (which was in three presentations), for the first and second presentations the writer gave examples on how to give inputs to the presenter on how to improve the ideas and the presentation. The writer made mistakes in not assigning certain students to give comments to the presenter. Unlike in the first cycle, in this second cycle any students can give comments to any presenter. This make the discussion could run smoothly, but it might only some students who got the opportunities to give comments and some students might be always keep silent and never give comment from the beginning until the end of the semester. The writer noticed that only certain students be active in giving comments for the whole semester.

The References for Writing the Seminar Paper: During the first presentation the students presented their idea on what might become their seminar paper. Based on the data collected on February 7, compared to the data collected on April 24, there are some students who changed their topic. Most of the students still had not read considerable amount of references during the first presentation. The writer suggested the students to read at least 10 references for writing the seminar paper, especially journal. According to [3] journal is any publication issued at regular intervals. In biosciences, usually containing papers describing original research findings and reviews of literature. It was found that during the second presentation, students also make critical analysis on articles/paper taken from seminar proceedings. According to [3], proceedings is a volume compiling written versions of papers read at scientific meetings. These may later appear in the literature as full papers. Some of the students mention their difficulties in finding references although they already tried to use the internet. Those students who could not find enough references changes their seminar topic. The example of the change is the seminar topic of Rizqi "Teaching Science Facts via Science Fiction" and Happy: "Collaboration of Learning Style and Motivation can Improve Students' Learning Outcomes".

The Assessment of the seminar paper and presentation. At the beginning of the fourteenth meeting the writer discussed with the class on how to assess the seminar paper and seminar presentation. The aspects of the paper that would be assessed included: the systematic presentation of the paper, the background, the idea presentation, the citation of references, and the writer idea for solution. The aspects of paper presentation that would be assessed include: the presenter readiness, effectiveness of presentation, the fluency of language, the multi-dimentional aspect of discussions, the quality of power point presentation (attractiveness, readability, and completeness) as well as the presenters' mastery of the topic. It was agreed that for each presenter there would be two evaluators for the paper and two evaluators for the presentation. However, the assessment of the seminar course will be based on five aspects or criteria which are the students' activity during class discussion, the journal writing, the critical analysis of references, the seminar paper and the presentation of the paper.

4. CONCLUSIONS

According to [4] good seminar paper fulfills two important functions. First, it reflects the author's development in the course for which it was written. It demonstrates the author's intellectual progress and meets, as closely as possible, the professor's expectations for a term paper. This seminar paper was planned to become an example for the students on how to develop a seminar paper, but it could not function as it was planned because the writer could not finish the writing of this paper on time. According to [4] Secondly, a good seminar paper fits into the author's scholarly trajectory. However relevant to the individual's specialization, it should generate ideas, skills, research, and questions that contribute to his or her overall scholarly project. Though these functions point, as it were, in opposite directions, they arise from the necessary assumption that seminars constitute the foundation for all future academic work. More than any other genre, quality seminar papers can motivate and structure inquiry. The writer is not happy with the quality of this paper. However, it already served as a good exercise for the writer to write a

seminar paper and hopefully can be used for an example of a seminar paper for the future seminar course students.

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